

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Matthew J. Strickler Secretary of Natural Resources TIDEWATER REGIONAL OFFICE 5636 Southern Boulevard, Virginia Beach, Virginia 23462 (757) 518-2000 Fax (757) 518-2009 www.deq.virginia.gov

David K. Paylor Director

Craig R. Nicol Regional Director

August 20, 2018

Mr. Garrick Venteicher Chief Financial Officer / Treasurer Commonwealth Chesapeake Company, LLC 7500 College Boulevard, Suite 400 Overland Park, Kansas 66210

Location: Accomack County Registration No.: 40898

Dear Mr. Venteicher:

Attached is a minor modification to your Title IV/V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning August 20, 2018.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on June 26, 2018.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. <u>Please read all permit conditions carefully.</u>

This permit approval to operate shall not relieve Commonwealth Chesapeake Company, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

To review any federal rules referenced in the above paragraph or in the attached permit, the US Government Publishing Office maintains the text of these rules at www.ecfr.gov, Title 40, Part 70 and 72.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director Department of Environmental Quality PO Box 1105 Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Ms. Laura D. Corl at (757) 518-2178 or by e-mail at <u>Laura.Corl@deq.virginia.gov</u>.

Sincerely,

Craig R. Nicol Regional Director

CRN/LDC/40898 017 18 T5minmod CCC cvrltr permit.docx

Attachment: Permit

cc:

Manager/Inspector, Air Compliance



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Matthew J. Strickler Secretary of Natural Resources

TIDEWATER REGIONAL OFFICE 5636 Southern Boulevard, Virginia Beach, Virginia 23462 (757) 518-2000 Fax (757) 518-2009 www.deq.virginia.gov

David K. Paylor Director

Craig R. Nicol Regional Director

Federal Operating Permit

Article 3

This permit is based upon the requirements of Titles IV and V of the Federal Clean Air Act and Chapter 80, Article 3 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13: 10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-360 through 9VAC5-80-700 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station

Facility Name: **Facility Location:**

3415 White Oak Way

New Church, VA 23415-2948

Registration Number:

40898

Permit Number:

TRO-40898

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Pages 4 through 24)

Federally Enforceable Requirements - Title IV Acid Rain (Page 25)

Federally Enforceable Requirements - CSAPR (Page 26)

State Only Enforceable Requirements (Pages 26-27)

August 20, 2018

December 31, 2019

Effective Date

Expiration Date

Signature Date

Table of Contents, page 2 Permit Conditions, pages 3-27

August 20, 2018 Page 2

Table of Contents

I.	FACILITY INFORMATION	3
II.	EMISSION UNITS	4
III.	FUEL BURNING EQUIPMENT REQUIREMENTS – (UNITS CT 1-7, FW-ENG AND EG-1)	5
A.	LIMITATIONS	5
В.		
C.	Recordkeeping/Reporting	
D.	Testing	14
IV.	STORAGE TANK REQUIREMENTS – (TANKS T 1-5)	15
A.	LIMITATIONS	15
В.	Recordkeeping	16
V.	INSIGNIFICANT EMISSION UNITS	17
VI.	PERMIT SHIELD & INAPPLICABLE REQUIREMENTS	18
VII.	GENERAL CONDITIONS	18
VIII.	TITLE IV (PHASE II ACID RAIN) PERMIT ALLOWANCES AND REQUIREMENTS	25
A.	STATUTORY AND REGULATORY AUTHORITIES	25
В.	SO ₂ ALLOWANCE ALLOCATIONS AND NO _x REQUIREMENTS FOR AFFECTED UNITS	25
C.	Additional Requirements, Notes, Comments, and Justifications	26
IX.	CROSS STATE AIR POLLUTION RULE (CSAPR) REQUIREMENTS	26
X.	STATE-ONLY ENFORCEABLE REQUIREMENTS	27

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station Permit Number: TRO-40898

August 20, 2018

Page 3

I. Facility Information

Permittee

Commonwealth Chesapeake Company, LLC 7500 College Blvd., Suite 400 Overland Park, KS 66210

Responsible Official

Garrick Venteicher Chief Financial Officer/Treasurer

Acid Rain Designated Representative and NO_x Budget Trading Authorized Account Representative

Brock Shealy Senior VP Business Operations USEPA AAR ID number: 606904

Facility

Commonwealth Chesapeake Power Station 3415 White Oak Way New Church, VA 23415-2948

Contact Person

Dan Runde Plant Manager 757-824-3340 ext. 114

County-Plant Identification Number: 51-001-00030

ORIS Code: 55381

NATS Facility Identification Number: 055381

Facility Description: NAICS 221112 – Commonwealth Chesapeake Company LLC is a peaker power plant for the Pennsylvania-New Jersey-Maryland (PJM) grid. It is owned and operated by Tyr Energy based in Overland Park, Kansas. It is located on a 126-acre tract of land in Accomack County on the Eastern Shore of Virginia. The plant is located less than one mile from the Maryland state line in New Church, Virginia.

The plant has seven (7) GE LM6000 PC simple cycle combustion turbines fired only on diesel fuel to generate electricity. With the renewal, the facility was permitted to become a black start facility to assist PJM in restoring power to the grid in the event of a regional loss of power. The facility has the capability to black start one turbine using the generator, which will supply power to their plant so other turbines can come on line as needed in a normal fashion. With this minor modification the emergency generator can be used in any emergency situation.

The facility is a Title V major source of NO_x , CO and SO_2 and an area source of HAP. This source is located in an attainment area for all pollutants, and is a PSD major source. The facility is currently permitted under a PSD permit issued on October 5, 2000, amended on March 8, 2006, June 2, 2015, June 17, 2015, and June 26, 2018.

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station Permit Number: TRO-40898 August 20, 2018

Page 4

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Combustion	Turbines						
CT-1 thru 7	CT 1-7	GE LM6000 CT 1 thru 3 Installed 2000 CT 4 thru 7 Installed 2001	43.3 MW each at ISO conditions	GE water injection on each CT	WI 1-7	NOx	NSR Permit of 10/05/2000, amended on 3/8/06, 6/2/15, 6/17/15, and 6/26/2018.
Distillate Oi	Storage T	Tanks					
T-1, 2, & 3	T 1-3	Above ground fixed roof tanks. 2000 & 2001	Each at 2.5 million gal	N/A	N/A	N/A	NSR Permit of 10/05/2000, amended on 3/8/06, 6/2/15, 6/17/15, and 6/26/2018.
T- 4 & 5	T 4 & 5	Above ground fixed roof tanks. 2001	Each at 225,000 gal	N/A	N/A	N/A	NSR Permit of 10/05/2000, amended on 3/8/06, 6/2/15, 6/17/15, and 6/26/2018.
Generators	Generators						
FW-ENG	-	Clark JDFP-06WR with a John Deere 6081A diesel fire pump engine (2000)	2.1 MMBtu/hr 275 BHP	N/A	N/A	N/A	
EG-1	-	Caterpillar 3512C Emergency Diesel Generator (2014)	1.5 MW, 750 ekW 2,206 BHP 7.4 MMBtu/hr	N/A	N/A	N/A	NSR Permit amended on 3/8/06, 6/2/15, 6/17/15, and 6/26/2018.

^{*}The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Page 5

III. Fuel Burning Equipment Requirements – (Units CT 1-7, FW-ENG and EG-1)

A. Limitations

- 1. **Fuel Burning Equipment Requirements Limitations Emission Controls -** Particulate matter emissions from each combustion turbine shall be controlled by the use of diesel fuel, a clean burning fuel. A change in the fuel may require a permit to modify and operate.

 (9VAC5-80-490 and Condition 1 of 6/26/2018 Permit)
- 2. **Fuel Burning Equipment Requirements Limitations Emission Controls** Sulfur dioxide and sulfuric acid mist emissions from each combustion turbine shall be controlled by the use of diesel fuel with a sulfur content not to exceed 0.05% by weight.

 (9VAC5-80-490 and Condition 2 of 6/26/2018 Permit)
- 3. **Fuel Burning Equipment Requirements Limitations Emission Controls** Nitrogen oxide emissions from each combustion turbine shall be controlled by water injection except during startup, shutdown and Low Load Emergency (LLE) operations (~10% load), when the use of water injection would interfere with turbine operations. The rate of water injection shall be at least that established during emissions tests as being sufficient to meet the emissions standards set forth in this permit. (9VAC5-80-490 and Condition 3 of 6/26/2018 Permit)
- 4. **Fuel Burning Equipment Requirements Limitations Emission Controls -** Carbon monoxide and volatile organic compound emissions from each combustion turbine shall be controlled by the use of good combustion operating practices.

 (9VAC5-80-490 and Condition 4 of 6/26/2018 Permit)
- 5. **Definitions** The following terms shall be defined as follows:
 - a. <u>Low Load Emergency (LLE) Operation</u>: means the ability of one turbine to operate for up to 6 hours at a low startup load (~10% load) without water injection. LLE operation shall be restricted to the following: (i) electrical restoration events identified by PJM (a regional transmission organization) once the emergency generator starts the turbine, and (ii) tests of LLE operation on CT-1 and CT-3 as required by PJM.
 - b. <u>Malfunction</u>: means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in this permit to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
 - c. <u>Shutdown</u>: Begins at the time the stop signal for the combustion turbine is initiated to the time no fuel is being combusted in the turbine. Engine trips activated by the combustion turbine control system would be considered a shutdown situation. Shutdown will not exceed a 60-minute period.
 - d. <u>Start-up</u>: Begins at the time the operator initiates start and flame is detected and fuel is fired. The Startup period will end at the time the combustion turbine reaches steady load and the water fuel ratio is stable within operating limits. Startup will not exceed a 60-minute period during normal plant startup.

(9VAC5-80-490 and Condition 5 of 6/26/2018 Permit)

Page 6

- 6. **Fuel Burning Equipment Requirements Limitations Approved Fuel** The approved fuel for the emergency diesel generator is ultra low sulfur diesel fuel. The approved fuel for the seven combustion turbines is diesel fuel. A change in the fuels may require a permit to modify and operate. (9VAC5-80-490 and Condition 7 of 6/26/2018 Permit)
- 7. **Fuel Burning Equipment Requirements Limitations Fuel Throughput** The seven combustion turbines and the emergency diesel generator shall consume no more than 42.0 million gallons of diesel fuel per year, combined, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9VAC5-80-490 and Condition 8 of 6/26/2018 Permit)
- 8. **Fuel Burning Equipment Requirements Limitations Fuel Specifications -** The diesel fuel shall meet the specifications below:

DIESEL FUEL which meets the ASTM D975 specification for Grades 1 or 2 diesel fuel:

Maximum sulfur content per shipment for the turbines:

0.05%

Maximum sulfur content per shipment for the emergency diesel generator:

0.0015%

(9VAC5-80-490 and Condition 9 of 6/26/2018 Permit.)

- 9. Fuel Burning Equipment Requirements Limitations Operating Load
 - a. **CT-1 and CT-3** Except during startup, shutdown and Low Load Emergency (LLE) operation (~10% load), combustion turbine CT-1 and CT-3 shall not operate at less than 70% of capacity. During LLE operation, only 1 of the combustion turbines (CT-1 or CT-3) shall be operating at ~10% load at any one time, and
 - b. **CT-2, 4, 5, 6, and 7** Except during startup and shutdown, combustion turbines CT-2, 4, 5, 6, and 7 shall not operate at less than 70% load.

(9VAC5-80-490 and Condition 12 of 6/26/2018 Permit)

- 10. **Fuel Burning Equipment Requirements Limitations Hours of Operation** Combustion turbines 1-3 (combined) shall not operate more than 6,000 hours per year, and combustion turbines 4-7 (combined) shall not operate more than 8,000 hours per year, which means that the seven turbines can be operated simultaneously for up to 2,000 hours per year. The number of operating hours for each combustion turbine shall be calculated monthly as the sum of each consecutive 12 month period. (9VAC5-80-490 and Condition 13 of 6/26/2018 Permit)
- 11. **Emergency Power Generation** The emergency Diesel Generator (EG-1) shall only be operated in the following modes:
 - a. In situations that arises from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:
 - 1. A failure of the electrical grid;
 - 2. On-site disaster or equipment failure; or
 - 3. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station Permit Number: TRO-40898

ermit Number: TRO-40898 August 20, 2018

Page 7

- b. For participation in an ISO-declared emergency, where an ISO emergency is:
 - 1. An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;
 - 2. Capacity deficiency or capacity excess conditions;
 - 3. A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;
 - 4. Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or
 - 5. An abnormal event external to the ISO service territory that may require ISO action.
- c. For periodic maintenance, testing, and operational training.

(9VAC5-80-490 and Condition 14 of the 6/26/2018 Permit)

- 12. **Fuel Burning Equipment Requirements Limitations Hours of Operation** The emergency diesel generator (EG-1) shall not operate for more than 500 hours per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. For each event the emergency diesel generator operates, the permittee shall keep a log of the date, time and reason for each event. This includes testing and maintenance hours. (9VAC5-80-490 and Condition 15 of 6/26/2018 Permit)
- 13. **Fuel Burning Equipment Requirements Limitations Non-Resettable Hour Meter Non-Resettable Hour Meter The emergency diesel generator shall be equipped with a non-resettable hour metering device to monitor the operating hours.** The non-resettable hour meter used to continuously measure the hours of operation for the emergency diesel generator shall be observed by the owner with a frequency of not less than once each day the emergency diesel generator is operated. The owner shall keep a log of these observations. The log shall include the date, observer's initials, and the time of operation of the engine and the reason the engine was in operation during that time.

(9VAC5-80-490, 9VAC5-50-410 and Condition 16 of 6/26/2018 Permit)

Page 8

14. **Fuel Burning Equipment Requirements - Limitations - Hourly CT 1-3 Emission Limits** - Hourly emissions from the operation of the combustion turbines CT-1, CT-2, and CT-3 shall not exceed the limits specified below:

	Each at 100% Capacity
	and at ~10 % Load (LLE)
	<u>lb/hr</u>
Particulate Matter (PM) (filterable)	10.3
PM-10 (filterable)	10.3
Sulfur Dioxide (SO2)	23.9
Nitrogen Oxides (as NO2)	$(42 \text{ ppmvd* for FBN} \le 0.015\%)$
	85.1
Nitrogen Oxides (as NO2)	$(42 + 400 \text{ FBN}) \text{ ppmvd* for } 0.015\% \le \text{FBN} \le 0.05\%$
	125.6
Carbon Monoxide (CO)	30.0
Volatile Organic Compounds (VOC)	5.6
Sulfuric Acid Mist	2.7

^{*} one hour average at 15% oxygen, adjusted to ISO standard ambient conditions. Not applicable during LLE operation.

FBN = Fuel Bound Nitrogen

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 6, 8, 9, 17, B.22, and B.23.

(9VAC5-80-490, 9VAC5-50-410 and Condition 18 of 6/26/2018 Permit)

15. **Fuel Burning Equipment Requirements - Limitations - Annual CT 1-3 and Generator Emission Limits** - Emissions from the operation of the emergency diesel generator and the combustion turbines CT-1, CT-2, and CT-3 shall not exceed the limits specified below:

	Combined Total
	ton/yr
Particulate Matter (PM) (filterable)	30.9
PM-10 (filterable)	30.9
Sulfur Dioxide (SO2)	65.1
Nitrogen Oxides (as NO2)	243.6**
Carbon Monoxide (CO)	90.0
Volatile Organic Compounds (VOC)	16.8
Sulfuric Acid Mist	7.4

^{**} Includes all operating hours per year: normal operation with water injection system; startups; shutdowns; LLE conditions; or any malfunctions when the water injection system is not used.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 6, 7, 8, 9, 10, 12, 17, 20, B.22, and B.23.

(9VAC5-80-490 and Condition 19 of 6/26/2018 Permit)

Page 9

16. **Fuel Burning Equipment Requirements - Limitations - CT 4-7 Emission Limits** - Emissions from the operation of the combustion turbines CT-4, CT-5, CT-6, and CT-7 shall not exceed the limits specified below:

	Each at 100% Capacity	Combined Total		
	<u>lb/hr</u>	ton/yr		
Particulate Matter (PM)	10.3	41.2		
PM-10	10.3	41.2		
Sulfur Dioxide (SO2)	23.9	86.8		
Nitrogen Oxides (as NO2)	$(42 \text{ ppmvd* for FBN} \le 0.015\%)$			
	85.1	322.4**		
Nitrogen Oxides (as NO2)	(42 + 400 FBN) ppmvd* for 0.01	$15\% \le FBN \le 0.05\%$		
	125.6	476.0**		
Carbon Monoxide (CO)	30.0	120.0		
Volatile Organic Compounds (VOC)	5.6	22.4		
Sulfuric Acid Mist	2.7	9.9		

^{*} one hour average at 15% oxygen, adjusted to ISO standard ambient conditions

FBN = Fuel Bound Nitrogen

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 6, 7, 8, 9, 10, 17, B.22, and B.23.

(9VAC5-80-490, 9VAC5-50-410 and Condition 20 of 6/26/2018 Permit)

- 17. **Fuel Burning Equipment Requirements Limitations Visible Emission Limit** Visible emissions from each of the combustion turbine exhaust stacks shall not exceed 10% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, (including LLE operations), shutdown, and malfunction. (9VAC5-50-80, 9VAC5-80-490 and Condition 22 of 6/26/2018 Permit)
- 18. **Fuel Burning Equipment Requirements Limitations Visible Emission Limit** Visible emissions from each of the internal combustion engine exhaust stacks (FW-ENG, EG-1) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction. (9VAC5-50-80 and 9VAC5-80-490)
- 19. **Fuel Burning Equipment Requirements Limitations Maintenance/Operating Procedures** At all times, including periods of start-up, shutdown, Low Load Emergency operations, and malfunctions, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

^{**} includes all operating hours per year: normal operation with water injection system; startups; shutdowns; or any malfunctions when the water injection system is not used.

Page 10

- a. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions from the combustion turbines:
- b. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- c. Maintain an inventory of spare parts.

Records of maintenance shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9VAC5-80-490 and Condition 31 of 6/26/2018 Permit)

- 20. **Fuel Burning Equipment Requirements Limitations NSPS Subpart IIII for Unit EG-1** The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) as follows:
 - a. Emission Limitations as specified in 40 CFR 60.4205(b); and,
 - b. Fuel requirements as specified in 60.4207(b). (9VAC5-80-490, 9VAC5-50-410 and 40 CFR 60, Subpart IIII)
- 21. **Fuel Burning Equipment Requirements Limitations MACT, Subpart ZZZZ for Unit FW-ENG** The permittee shall comply with the applicable requirements of 40 CFR 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) as follows:
 - a. Emission limitations as specified in 63.6603; and,
 - b. Fuel requirements as specified in 63.6604(b).

(9VAC5-80-490, 9VAC5-60-100 and 40 CFR 63, Subpart ZZZZ)

B. Monitoring

22. **Fuel Burning Equipment Requirements - Monitoring - Sulfur and Fuel-Bound Nitrogen Content of Diesel Fuel** - The sulfur content and fuel-bound nitrogen content of the diesel fuel to be burned in the combustion turbines shall not each exceed 0.05 percent by weight per shipment. The sulfur content shall be determined in accordance with 40 CFR Part 60, Subpart GG, Section 60.335(b)(10). The fuel-bound nitrogen shall be determined in accordance with 40 CFR Part 60, Subpart GG, Section 60.335(b)(9). The permittee shall maintain records certifying the sulfur and nitrogen content of the fuel. The permittee shall monitor the sulfur and nitrogen content of the diesel fuel being fired in the combustion turbines in accordance with 40 CFR Section 60.334(i).

(9VAC5-80-490, 9VAC5-50-410 and Condition 11 of 6/26/2018 Permit)

Fuel Burning Equipment Requirements - Monitoring - Water to Fuel Ratio Monitoring - The continuous monitoring systems shall be installed and operated to monitor and record the fuel consumption and ratio of water injected to fuel being fired in each combustion turbine. These monitoring systems shall be operated at all times that water is being injected into each combustion turbine and shall be accurate to within \pm 5.0 percent. The systems shall be maintained and calibrated in accordance with manufacturer's specifications. As a minimum, calibration shall be done at least annually. (9VAC5-80-490, 9VAC5-50-410 and Condition 17 of 6/26/2018 Permit)

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station

Permit Number: TRO-40898 August 20, 2018

Page 11

- 24. **Fuel Burning Equipment Requirements Monitoring Visible Emission checks** The permittee shall perform monthly visual checks on each turbine stack exhaust during daylight hours of normal operations for visible emissions. If visible emissions are noted from the stack, a visible emissions evaluation (VEE) shall be immediately conducted on the stack for at least six minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average exceeds 5%, the VEE shall continue for one hour from initiation on the turbine stack to determine compliance with the opacity limit. The permittee shall record the details of the visual observations, VEE, and any maintenance actions to reduce opacity. (9VAC5-50-80 and 9VAC5-80-490)
- 25. **Fuel Burning Equipment Requirements Monitoring Visible Emission checks** The permittee shall perform annual visual checks on each internal combustion engine stack exhaust during maintenance testing for visible emissions. If visible emissions are noted from the stack, a visible emissions evaluation (VEE) shall be immediately conducted on the stack for at least six minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average exceeds 20%, the VEE shall continue for one hour from initiation on the turbine stack to determine compliance with the opacity limit. The permittee shall record the details of the visual observations, VEE, and any maintenance actions to reduce opacity. (9VAC5-50-80 and 9VAC5-80-490)
- 26. **Fuel Burning Equipment Requirements Monitoring NSPS Subpart IIII for Unit EG-1** The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) as follows:
 - a. Monitoring Requirements as specified in 60.4209(a); and,
 - b. Compliance Requirements as specified in 60.4206, 60.4211(a), (c), (f), (g). (9VAC5-80-490, 9VAC5-50-410 and 40 CFR 60, Subpart IIII)
- 27. **Fuel Burning Equipment Requirements Monitoring MACT, Subpart ZZZZ for Unit FW-ENG** The permittee shall comply with the applicable requirements of 40 CFR 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) as follows:
 - a. Monitoring, Installation, Collection, Operation and Maintenance Requirements as specified in 63.6625(e), (f), (h), (i); and,
 - b. Continuous Compliance as specified in 63.6605, 63.6640. (9VAC5-80-490, 9VAC5-60-100 and 40 CFR 63, Subpart ZZZZ)

C. Recordkeeping/Reporting

28. **Fuel Burning Equipment Requirements - Recordkeeping/Reporting - Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

Page 12

- a. The name of the fuel supplier;
- b. The date on which the diesel fuel was received;
- c. The quantity of diesel fuel delivered in the shipment;
- d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications for Grades 1 or 2 fuel oil; and,
- e. The sulfur content of the diesel fuel.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition number A.8. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9VAC5-80-490 and Condition 10 of 6/26/2018 Permit)

- 29. Fuel Burning Equipment Requirements Recordkeeping/Reporting NSPS Subpart IIII for Unit EG-1 The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) for Notification, Reports, and Records Requirements as specified in 60.4214(b). (9VAC5-80-490, 9VAC5-50-410 and 40 CFR 60, Subpart IIII)
- 30. **Fuel Burning Equipment Requirements Recordkeeping/Reporting MACT, Subpart ZZZZ for Unit FW-ENG** The permittee shall comply with the applicable requirements of 40 CFR 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) as follows:
 - a. Recordkeeping Requirements as specified in 63.6655 (d), (e), (f); and,
 - b. Reporting requirements as specified in Footnote 2 of Table 2d. (9VAC5-80-490, 9VAC5-60-100 and 40 CFR 63, Subpart ZZZZ)
- 31. **Fuel Burning Equipment Requirements Recordkeeping/Reporting On Site Records -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, TRO Regional Office. These records shall include, but are not limited to:

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station

Permit Number: TRO-40898 August 20, 2018

Page 13

- a. The total operating hours per year for each combustion turbine with combined operating hours for CT 1-3 and CT 4-7, calculated as the sum of each consecutive 12 month period;
- b. All the fuel oil analysis reports for sulfur and nitrogen content in accordance with condition B.22;
- c. Oil shipments purchased, indicating the name of the supplier, date of purchase, type and volume of fuel per each shipment;
- d. Annual amount of diesel fuel consumed by all turbines and the emergency generator, calculated as the sum of each consecutive 12 month period;
- e. Monthly and annual NO_x and SO_2 emission calculations. Monthly and annual emissions calculations for all other pollutants listed in Conditions A.15 and A.16 from the usage of DEQ approved emission factors;
- f. Listing of DEQ approved emission factors for pollutants listed in Condition A.15 and A.16;
- g. Semi-annual excess emissions reports;
- h. All fuel supplier certifications in accordance with Condition 28;
- i. Monthly and annual hours of operation for the emergency diesel generator and the log indicating the reason for the generator operation. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months; and,
- j. Record the date, start time, stop time, duration and event type for each event in which the combustion turbines CT-1 or CT-3 operate in Low Load Emergency (LLE) mode.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years. (9VAC5-80-490, 9VAC5-50-50, 9VAC5-50-410 and Condition 24 of 6/26/2018 Permit)

Page 14

- 32. **Fuel Burning Equipment Requirements Recordkeeping/Reporting Excess Emission Reports** Semi-annual reports of excess emissions shall be submitted to the Director, Tidewater Regional Office in accordance with 40 CFR 60.7(c). The time periods to be addressed are January 1 to June 30 and July 1 to December 31. The reports shall be postmarked by January 31 and July 31 of each calendar year. In addition to the information required by 40 CFR 60.7(c), each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions. For the purpose of this report, periods of excess emissions are defined as follows:
 - a. Any one hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the average water- to-fuel ratio determined to demonstrate compliance with the nitrogen oxide ppmvd limits specified in Conditions A.14 or A.16 during the most recent compliance test.
 - b. Any period during which the sulfur content of the diesel fuel being fired in the combustion turbines exceeds 0.05 percent by weight.
 - c. Any period during which the nitrogen content of the diesel fuel being fired in the gas turbines exceeds 0.05 percent by weight.
 - d. Any period during which the monitoring system for the water-to-fuel ratio is not functioning normally and the essential parametric data needed to determine the water to fuel ratio are unavailable or invalid. (9VAC5-80-490, 9VAC5-50-50, 9VAC5-50-410 and Condition 25 of 6/26/2018 Permit)
- 33. **Fuel Burning Equipment Requirements Recordkeeping/Reporting Ongoing Notifications** The permittee shall furnish written notification to the Tidewater Regional Office of each time an LLE event has occurred, within 30 days after each event. Include in the notification the date, the time and the duration of the LLE event.

 (9VAC5-50-50, 9VAC5-80-490 and Condition 28 of 6/26/2018 Permit)

D. Testing

34. **Fuel Burning Equipment Requirements - Testing - Annual Performance Testing** - Annual performance tests shall be conducted on one combustion turbine each calendar year. A different turbine shall be selected each year such that each turbine selected shall be tested about every seven years for nitrogen oxides while operating at 70% and 100% of capacity by using Method 20 (40 CFR Part 60, Appendix A) to determine compliance with NO_x limits specified in Conditions A.14 and A.15 or A.16. The tests shall be performed anytime during each calendar year. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Director, Tidewater Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Director, Tidewater Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9VAC5-50-30, 9VAC5-80-490 and Condition 26 of 6/26/2018 Permit)

Page 15

- 35. **Fuel Burning Equipment Requirements Testing Annual VEE** Concurrently with annual performance tests for each turbine being tested, a Visible Emission Evaluation (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on each combustion turbine stack while operating at 70% and 100% of capacity. The test shall consist of 10 sets of 24 consecutive observations (at 15 second intervals) to yield 6 minute averages. Should conditions prevent concurrent opacity observations, the Tidewater Regional Office shall be notified in writing, within 7 days, and visible emissions testing to be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the annual tests. A copy of the test result shall be submitted to the Tidewater Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9VAC5-50-30, 9VAC5-80-490 and Condition 27 of 6/26/2018 Permit)
- 36. **Fuel Burning Equipment Requirements -Testing** The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

 (9VAC5-50-30 and 9VAC5-80-490)

IV. Storage Tank Requirements – (Tanks T 1-5)

A. Limitations

37. **Storage Tank Requirements - Limitations - Storage Tanks -** The permittee is authorized to store diesel fuel in the storage tanks (Units T-1 through T-5). A change in the materials stored may require a permit to modify and operate.

(9VAC5-80-490 and Condition 6 of 6/26/2018 Permit)

38. **Storage Tank Requirements - Limitations - Storage Tank Emissions** - Emissions from the operation of the fuel oil storage tanks T-1, T-2, T-3, T-4, and T-5 (combined) shall not exceed the limits as specified below:

Volatile Organic Compounds

1.8 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedances of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers III.A.7 and 37.

(9VAC5-80-490 and Condition 21 of 6/26/2018 Permit)

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station Permit Number: TRO-40898

August 20, 2018

Page 16

B. Recordkeeping

- 39. **Storage Tank Requirements Recordkeeping On Site Records** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited:
 - a. Records of products stored in tanks T 1-5, dimensions and storage capacity of each tank.
 - b. Monthly and annual emissions calculations for VOC to show compliance with Condition 38 from the usage of DEQ approved emission factors.
 - c. Listing of DEQ approved emission factors for VOC from the storage tanks.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years. (9VAC5-80-490, 9VAC5-50-50, 9VAC5-50-410 and Condition 24 of 6/26/2018 Permit)

Page 17

V. Insignificant Emission Units

40. **Insignificant Emission Units -** The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation 9VAC5-80-720 A, B, or C	Pollutant(s) Emitted (if applicable to 9VAC5-80-720 B)	Rated Capacity (if applicable to 9VAC5-80-720 C)
Fugitive-1 (fuel oil)	Fugitive emissions associated with the unloading, processing and transfer of diesel fuel oil	9VAC5-80-720C	VOC	42 x 10 ⁶ gal/yr
Fugitive-2 (Oil/water separator)	Fugitives from oil/water separator	9VAC5-80-720C	VOC	< 500 gal
Fugitive 3 (small tanks)	Reservoirs and storage tanks for lubricants or used oil with a capacity less than 1000 gallons	9VAC5-80-720C	VOC	< 1000 gal each
Fugitive-4 (plant traffic)	Fugitive emissions related to movement of non-passenger vehicles; e.g., diesel trucks	9VAC5-80-720C	VOC	Each less than 500 gal
FPT-1	Fire pump diesel fuel tank	9VAC5-80-720C	VOC	< 500 gal
BSET-1	Emergency Generator diesel fuel tank	9VAC5-80-720C	VOC	<1300 gal

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-490. (9VAC5-80-490)

Page 18

VI. Permit Shield & Inapplicable Requirements

41. **Permit Shield & Inapplicable Requirements -** Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
9VAC5 Chapter 80, Article 7 & 9VAC5 Chapter 60, Article 3	Major Hazardous Air Pollutant NSR Permitting	Not a major HAP source
40 CFR 60, Subpart KKKK	Standards of Performance for Stationary Combustion Turbines	Facility constructed prior to applicability date of 2005
40 CFR 60, Subpart Part Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	True Vapor Pressure of diesel fuel oil is less than 3.5 kPa.
40 CFR 61	NESHAPs	No Source category listed
40 CFR 63 Subpart YYYY	MACT for Stationary Combustion Turbines	Not a major HAP source
40 CFR 64	Compliance Assurance Monitoring	CTs 1-7 do not use air pollution control equipment to destroy pollutants.
40 CFR 68	Prevention of Accidental Chemical Releases	Any chemicals on site are below threshold levels.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law. (9VAC5-80-500)

VII.General Conditions

- 42. **General Conditions Federal Enforceability** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9VAC5-80-490)
- 43. **General Conditions Permit Expiration -** This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-430, the right of the facility to operate shall be terminated upon permit expiration. (9VAC5-80-430, 9VAC5-80-490, and 9VAC5-80-530)
- 44. **General Conditions Permit Expiration** The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration. (9VAC5-80-430, 9VAC5-80-490, and 9VAC5-80-530)

Page 19

- 45. **General Conditions Permit Expiration** If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 3, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-510. (9VAC5-80-430, 9VAC5-80-490, and 9VAC5-80-530)
- 46. **General Conditions Permit Expiration** No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-430 for a renewal permit, except in compliance with a permit issued under Article 3, Part II of 9VAC5 Chapter 80. (9VAC5-80-430, 9VAC5-80-490, and 9VAC5-80-530)
- 47. **General Conditions Permit Expiration** If an applicant submits a timely and complete application under section 9VAC5-80-430 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-500, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied. (9VAC5-80-430, 9VAC5-80-490, and 9VAC5-80-530)
- 48. **General Conditions Permit Expiration** The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-430 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-430 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application. (9VAC5-80-430, 9VAC5-80-490, and 9VAC5-80-530)
- 49. **General Conditions -Recordkeeping and Reporting** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement. (9VAC5-80-490)
- 50. **General Conditions -Recordkeeping and Reporting** Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9VAC5-80-490)

Page 20

- 51. **General Conditions -Recordkeeping and Reporting** The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
 - b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - 1. Exceedance of emissions limitations or operational restrictions;
 - 2. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - 3. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9VAC5-80-490)

- 52. **General Conditions Annual Compliance Certification** Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:
 - a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
 - b. The identification of each term or condition of the permit that is the basis of the certification.
 - c. The compliance status.
 - d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
 - e. Consistent with subsection 9VAC5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
 - f. Such other facts as the permit may require to determine the compliance status of the source.
 - g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9VAC5-80-490)

Page 21

- 53. **General Conditions Permit Deviation Reporting** The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 51 of this permit. (9VAC5-80-490)
- 54. **General Conditions Failure/Malfunction Reporting** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by e-mail, facsimile transmission or telephone of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.

 (9VAC5-20-180 C and 9VAC5-80-490)
- 55. **General Conditions Failure/Malfunction Reporting** Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the Board <u>semiannually</u>. All semi-annual reports shall be postmarked by the 30th day following the end of each calendar semi-annual period (July 30th and January 30th). All reports shall include the following information:
 - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions:
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and,
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9VAC5-40-50 C and 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction. (9VAC5-20-180 C, 9VAC5-50-50, and 9VAC5-80-490)

56. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. (9VAC5-80-490)

Page 22

- 57. **General Conditions Duty to Comply** The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application. (9VAC5-80-490)
- 58. **General Conditions Need to Halt or Reduce Activity not a Defense** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (9VAC5-80-490)
- 59. **General Conditions Permit Modification** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-360, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9VAC5-80-490, 9VAC5-80-550, and 9VAC5-80-660)
- 60. **General Conditions Property Rights** The permit does not convey any property rights of any sort, or any exclusive privilege. (9VAC5-80-490)
- 61. **General Conditions Duty to Submit Information** The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9VAC5-80-490)
- 62. **General Conditions Duty to Submit Information -** Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G. (9VAC5-80-490)
- 63. **General Conditions Duty to Pay Permit Fees** The owner of any source for which a permit under 9VAC5-80-360 through 9VAC5-80-700 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9VAC5-80-2340, adjusted annually by the change in the Consumer Price Index. (9VAC5-80-490, 9VAC5-80-340 C, and 9VAC5-80-2340 B)
- 64. **General Conditions Fugitive Dust Emission Standards** During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

Page 23

- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-50-90 and 9VAC5-80-490)

65. **General Conditions - Startup, Shutdown, and Malfunction** - At all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9VAC5-50-20 E and 9VAC5-80-490)

- 66. **General Conditions Alternative Operating Scenarios** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-500 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 3. (9VAC5-80-490)
- 67. **General Conditions Inspection and Entry Requirements** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:
 - a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
 - d. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
 (9VAC5-80-490)
- 68. **General Conditions Reopening For Cause** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-430 F. The conditions for reopening a permit are as follows:

Page 24

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-490 D. (9VAC5-80-490)
- 69. **General Conditions Permit Availability** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-510 and 9VAC5-80-490)
- 70. **General Conditions Transfer of Permits** No person shall transfer a permit from one location to another. (9VAC5-80-520)
- 71. **General Conditions Transfer of Permits** In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-560. (9VAC5-80-520)
- 72. **General Conditions Transfer of Permits** In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-560. (9VAC5-80-520)
- 73. **General Conditions Permit Revocation or Termination for Cause** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 3. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

 (9VAC5-80-490, 9VAC5-80-640, and 9VAC5-80-660)
- 74. **General Conditions Duty to Supplement or Correct Application** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9VAC5-80-430 and 9VAC5-80-490)
- 75. **General Conditions Stratospheric Ozone Protection** If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (40 CFR Part 82, Subparts A-F and 9VAC5-80-490)

Page 25

- 76. **General Conditions Changes to Permits for Emissions Trading** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (9VAC5-80-490)
- 77. **General Conditions Emissions Trading** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
 - a. All terms and conditions required under 9VAC5-80-490, except subsection N, shall be included to determine compliance.
 - b. The permit shield described in 9VAC5-80-500 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-360 through 9VAC5-80-700.
 (9VAC5-80-490)

VIII. Title IV (Phase II Acid Rain) Permit Allowances and Requirements

A. Statutory and Regulatory Authorities

In accordance with the Air Pollution Control Law of Virginia §10.1-1308 and §10.1-1322, the Environmental Protection Agency (EPA) Final Full Approval of the Operating Permits Program (Titles IV and V) published in the Federal Register December 4, 2001, Volume 66, Number 233, Rules and Regulations, Pages 62961-62967 and effective November 30, 2001, and Title 40, the Code of Federal Regulations §72.1 through 76.16, the Commonwealth of Virginia Department of Environmental Quality issues this permit pursuant to 9VAC5 Chapter 80, Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution (Federal Operating Permit Article 3).

(9VAC5-80-490)

B. SO₂ Allowance Allocations and NO_x Requirements for affected units

		2015	2016	2017	2018	2019
CT 1-7 Each turbine is a 43.3 Mwe/hr	SO ₂ allowances, under Table 2, 40 CFR Part 73.	None ¹				
(at ISO conditions) oil fired simple cycle gas turbine.	NO _x limit:	N/A ²				

¹ - See Subsection C.

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

² - Not subject to 40 CFR Part 76.

Commonwealth Chesapeake Company, LLC Commonwealth Chesapeake Power Station

Permit Number: TRO-40898 August 20, 2018

Page 26

C. Additional Requirements, Notes, Comments, and Justifications

78. Additional Requirements:

a. Commonwealth Chesapeake Company, LLC shall submit a complete permit application that includes all of the information required under 40 CFR §72.21 and 72.31 at least 6 months, but no earlier than 18 months, prior to the date of expiration of the existing Phase II Acid Rain permit. EPA forms shall be used.

(9VAC5-80-430 C.5)

79. Notes.

a. SO₂ allowances may be acquired from other sources in addition to those allocated by U.S. EPA. No revision to this permit is necessary in order for the owners and operators of this unit to hold additional allowances recorded in accordance with 40 CFR Part 73. The owners and operators of this unit remain obligated to hold sufficient allowances to account for SO₂ emissions from this unit in accordance with 40 CFR 72.9(c)(1).

(9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

b. These units were not eligible for SO₂ allowance allocation by U.S. EPA under §405 of the Clean Air Act and the Acid Rain Program, so none were assigned in 40 CFR Part 73, Table 2. (9VAC5-80-420, 9VAC5-80-490 and 40 CFR Parts 72 and 73)

IX. Cross State Air Pollution Rule (CSAPR) Requirements

80. **CSAPR Requirements** - The permittee shall comply with all applicable cross-state air pollution rule (CSAPR) requirements (40 CFR Part 97, Subparts AAAAA-DDDDD) by the compliance date specified in 40 CFR 97, Subparts AAAAA-DDDDD, as amended.

(40 CFR Part 97, Subparts AAAAA-DDDDD and 9VAC5-80-490)

Page 27

X. State-Only Enforceable Requirements

81. **State-Only Enforceable Requirements** - The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9VAC5-80-690 concerning review of proposed permits by EPA and draft permits by affected states.

Odor: 9VAC5-50 Article 2

State Toxics Rule: 9VAC5-60 Article 5 (9VAC5-80-490(N)(2) and 9VAC5-80-700)

82. **Toxic Pollutant Emissions** - The emissions from the operation of the combustion turbines CT-1 through CT-7 shall not exceed the limits as specified below:

	(each at 100% of capacity)	(combined total)
Toxic Pollutants (as VOC)	<u>lb/hr</u>	tons/yr
Formaldehyde	0.1	0.8
Toxic Pollutants (as PM-10)	<u>lb/hr</u>	tons/yr
Lead	0.006	0.04
Arsenic	0.005	0.03
Beryllium	0.0001	0.0009
Cadmium	0.002	0.01
Chromium	0.005	0.03
Manganese	0.4	2.3
Mercury	0.0005	0.004
Selenium	0.01	0.07

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedances of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers III.A.7 and III.A.10.

(9VAC5-60-320, 9VAC5-80-490, and 9VAC5-80-700)

- 83. **Toxic Pollutant Records** The permittee shall maintain records of all emission data and operating parameters for the seven combustion turbines necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
 - a. Monthly and annual emissions for all other pollutants listed in Condition 82 from the usage of DEQ approved emission factors.
 - b. Listing of DEQ approved emission factors for pollutants listed in Condition 82.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent 5 years.

(9VAC5-50-50, 9VAC5-80-490, and 9VAC5-80-700)